AMENDMENTS TO SPECIFICATION

Page 1, lines 5-7:

The present invention relates to a data communication network and more particularly to a method for synchronously updating, at each client, screen data of a database application program at clients over the network.

Page 1, lines 10-27:

In recent years, as due to the rapid development of the Internet and lower cost of establishing a network hardware and software), more and more enterprises are capable of installing an intranet for connecting with related manufacturers. Such intranet is further coupled to applications of a database system for collecting information and processing, calculating, and analyzing the same so as to procure the latest information. Particularly for multi-national enterprises, it is required to integrate their processes of product design, development, manufacturing and marketing for the whole world for while tailoring the products to the needs of various domestic and international markets, and to quickly design and manufacture commercially available products and distribute them throughout the world. In order to archive achieve this requirement, those multi-national enterprises have utilized the local area network (LAN) to increase the efficiency of information communication within the organization, and further utilized the Internet to communicate with cooperating manufacturers and retrieve the latest market information in a fast and correct manner. As a result, such products being manufactured are not only what consumers want, but also very competitive in price. This in turn can increase sales, and thus greatly reduces the inventory cost.

Page 2, lines 1-21:

In general, a network system established within an enterprise comprises a server, a plurality of clients and a large database system provided in the server. Such database system comprises a plurality of databases for storing a variety of records each having a plurality of

distinct fields based on its ~~characteristic~~ characteristics. For example, a typical order in a manufacturer's database comprises fields of serial number, type, part number, unit price, etc. such fields consist of a record ~~of~~ in the database. Each of the plurality of clients is coupled to the server. Further, a screen of the database application program is available for the user to enter a database system at the server via one of the clients. Thus, the user can input data into a record of the database or search stored data in records of the database. In the above network system, the data being updated in the database system at the server by a client cannot be transmitted to all other clients synchronously. Hence, it is impossible to synchronously update the screen data of the database application program at other clients. For overcoming such a problem, many enterprises design a mechanism in a network based database system for clients to regularly read updated data from the server to as to display the latest data on the screen of the database application program at each client. As a result, the user can see the latest data from the screen of the database application program at every client ~~in~~ at any time. This technique can generally solve the above problem. However, it significantly increase the times of clients reading updated data by entering the server. As a result, the load ~~of~~ on the server is very heavy.

Page 2, lines 22-24:

Thus, it is desirable to provide a method for synchronously updating screen data of a database application program at clients over a network in order to overcome the above problem of the prior art.

Page 2, line 27 to Page 3, line 10:

It is therefore an object of the present invention to provide a method for synchronously updating screen data of a database application program at clients over a network. When any client updates data ~~of~~ in the database system at the server, the updated data will be synchronously transmitted to other clients by referring to a reference table. As an end, data of related fields on a screen of the database application program at other clients are synchronously updated. This eliminates the problem of prior art which requires each client to regularly read updated data from the server for displaying the latest data on the screen of the database application program at each

client. As a result, the invention can effectively decrease the times of clients reading updated data by entering the server, thereby significantly reducing the load ~~of~~ on the server.

Page 4, lines 8-23:

In a current network system, a computer at each ~~of~~ client and a computer at a server are capable of communicating data by utilizing a network communication protocol implemented on an installed network application program. In an example of utilizing a communication protocol (e.g., Transport Control Protocol/Internet Protocol, which is abbreviated to TCP/IP) for communicating data over the network, computers at each ~~of~~ client and the server in the network system have to designate a set of IP address and communication port ~~number~~ numbers (e.g., PORT) by executing the installed network application program, in which the combination of IP address and PORT is a so-called "socket". Therefore, if any two computers are going to communicate data therebetween over the network, the computers have to have a pair of matched sockets and set a TCP communication protocol by the network application program installed therein. Hence, prior to transmitting data over the network, one computer has to establish a communication channel with other computers by utilizing the TCP communication protocol, and will close the communication channel after the data has been transmitted.

Page 4, line 24 to Page 5, line 7:

The present invention utilizes the characteristics of data communication among computers over the network system, and installs a reference table at a server of the network system. Thus, filenames of all databases in a database system opened by a plurality of clients over the network are recorded in the reference table. When one of the clients updates data of a certain database at the server, the client can read the reference table for identifying the filenames of databases opened by other clients and subsequently ~~transmitting~~ transmit updated data at the client to other clients so as to update data of corresponding fields on a screen of the database application program at other clients accordingly. As a result, the purpose of synchronously updating screen data of the database application program at clients is achieved.

Page 5, lines 8-21:

Referring to FIG. 1, in a preferred embodiment of the present invention, a network system 10 comprises at least one server 11 and a plurality of clients 12 coupled to the server 11. As shown, each client 12 and server 11 are capable of communicating data by utilizing a network communication protocol (e.g., TCP/IP communication protocol in this embodiment but ~~may be~~ a different one in ~~any of~~ other possible embodiments) implemented on an installed network application program on the network system 10. In this invention, a database system is further provided in the server 11. The database system comprises at least one database for storing a variety of records each having a unique filename of the database. A database application program capable of entering the database system is installed in the client 12. Hence, a screen of the database application program at each client is available for the user to enter the database system at the server and input data into a record of the database or search stored data in records of the database.

Page 5, line 22 to Page 6, line 6:

Referring to FIG. 1, there is shown a reference table 20 in the server. The reference table 20 comprises a plurality of fields (those labeled as 21, 22 and 23) for storing an IP address, communication port number (e.g., PORT), and filename of a database (opened by the database application program at each client for entering the database system at the server) of each client coupled to the server. Thus, when any one of the clients enters the database system at the server and updates data of a certain database thereof, the client can read the reference table 20 for identifying filenames of databases opened by other clients coupled to the server and subsequently transmitting the updated data to other clients so as to update data of corresponding fields on the screen of the database application program at the other clients. As a result, the purpose of synchronously updating screen data of the database application program at clients is achieved.

Page 6, lines 7-12:

in the preferred embodiment, each client can enter the database system at the server by executing the installed database application program as well as the database application program

of the database system downloaded from the server. Hence, the user can input data into a record of the database or search data stored in records of the database through the screen of the database application program at the client.

Page 6, lines 19-22:

in step 101, determine whether an updating is performed on the record of the database corresponding to the filename of the database being opened after each client has entered the server; if yes, the process goes to step 102, otherwise , the process loops back to step 110;

Page 7, lines 3-6:

In step 201, transmit the updated data to other clients for updating data of the related fields on the screen of the database application program at each of the other clients. As a result, the purpose of synchronously updating screen data of a database application program at clients is achieved.

Page 7, lines 7-15:

As stated above, in the present invention when any client is updating data of the database system at the server, the updated data will be synchronously transmitted to other clients by referring to the reference table. As an end, data of the related fields on the screen of the database application program at other clients are synchronously updated. This eliminates the problem of the server for displaying the latest data on the screen of the database application program at each client. As a result, the invention can effectively decrease the ~~times of~~ time spent by a client reading updated data by entering the server. Thereby significantly reducing the load ~~of~~ on the server.